

Therapists often lift and carry equipment as well as lead recreational activities. Recreational therapists generally work a 40-hour week that may include some evenings, weekends, and holidays.

Employment

Recreational therapists held about 39,000 jobs in 1998. About 38 percent of salaried jobs for therapists were in hospitals, and 26 percent were in nursing and personal care facilities. Others worked in residential facilities, community mental health centers, adult day care programs, correctional facilities, community programs for people with disabilities, and substance abuse centers. About 1 out of 3 therapists was self-employed, generally contracting with long-term care facilities or community agencies to develop and oversee programs.

Training, Other Qualifications, and Advancement

A bachelor's degree in therapeutic recreation, or in recreation with a concentration in therapeutic recreation, is the usual requirement for entry-level positions. Persons may qualify for paraprofessional positions with an associate degree in therapeutic recreation or a health care related field. An associate degree in recreational therapy; training in art, drama, or music therapy; or qualifying work experience may be sufficient for activity director positions in nursing homes.

Most employers prefer to hire candidates who are certified therapeutic recreation specialists (CTRS). The National Council for Therapeutic Recreation Certification (NCTRC) certifies therapeutic recreation specialists. To become certified, specialists must have a bachelor's degree, pass a written certification examination, and complete an internship of at least 360 hours, under the supervision of a certified therapeutic recreation specialist. A few colleges or agencies may require 600 hours of internship.

There are approximately 150 programs that prepare recreational therapists. Most offer bachelor's degrees, although some offer associate, master's, or doctoral degrees. As of 1998, there were 43 recreation programs with options in therapeutic recreation accredited by the National Council on Accreditation.

Recreational therapy programs include courses in assessment, treatment and program planning, intervention design, and evaluation. Students also study human anatomy, physiology, abnormal psychology, medical and psychiatric terminology, characteristics of illnesses and disabilities, professional ethics, and the use of assistive devices and technology.

Recreational therapists should be comfortable working with persons who are ill or have disabilities. Therapists must be patient, tactful, and persuasive when working with people who have a variety of special needs. Ingenuity, a sense of humor, and imagination are needed to adapt activities to individual needs; and good physical coordination is necessary to demonstrate or participate in recreational activities.

Therapists may advance to supervisory or administrative positions. Some teach, conduct research, or perform contract consulting work.

Job Outlook

Employment of recreational therapists is expected to grow as fast as the average for all occupations through the year 2008, because of anticipated expansion in long-term care, physical and psychiatric rehabilitation, and services for people with disabilities. However, the total number of job openings will be relatively low, because the occupation is small. Opportunities should be best for persons with a bachelor's degree in therapeutic recreation or in recreation with an option in therapeutic recreation.

Health care facilities will provide a growing number of jobs in hospital-based adult day care and outpatient programs and in units offering short-term mental health and alcohol or drug abuse

services. Rehabilitation, home-health care, transitional programs, and psychiatric facilities will provide additional jobs.

The rapidly growing number of older adults is expected to spur job growth for therapeutic recreation specialists and recreational therapy paraprofessionals in assisted living facilities, adult day care programs, and social service agencies. Continued growth is also expected in community residential facilities, as well as day care programs for individuals with disabilities.

Earnings

Median annual earnings of recreational therapists were \$27,760 in 1998. The middle 50 percent earned between \$21,580 and \$35,000 a year. The lowest 10 percent earned less than \$16,380 and the highest 10 percent earned more than \$42,440 a year. Median annual earnings for recreational therapists in 1997 were \$29,700 in hospitals and \$21,900 in nursing and personal care facilities.

Related Occupations

Recreational therapists primarily design activities to help people with disabilities lead more fulfilling and independent lives. Other workers who have similar jobs are recreational therapy paraprofessionals, orientation therapists for persons who are blind or have visual impairments, art therapists, drama therapists, dance therapists, music therapists, occupational therapists, physical therapists, and rehabilitation counselors.

Sources of Additional Information

For information on how to order materials describing careers and academic programs in recreational therapy, write to:

✉ American Therapeutic Recreation Association, P.O. Box 15215, Hattiesburg, MS 39402-5215. Internet: <http://www.atra-tr.org>

✉ National Therapeutic Recreation Society, 22377 Belmont Ridge Rd., Ashburn, VA 20148-4501.

Internet: <http://www.nrpa.org/branches/ntrs.htm>

Certification information may be obtained from:

✉ National Council for Therapeutic Recreation Certification, P.O. Box 479, Thiells, NY 10984-0479.

Registered Nurses

(O*NET 32502)

Significant Points

- The largest health care occupation, with over 2 million jobs.
- One of the 10 occupations projected to have the largest numbers of new jobs.
- Earnings are above average, particularly for advanced practice nurses who have additional education or training.

Nature of the Work

Registered nurses (R.N.s) work to promote health, prevent disease, and help patients cope with illness. They are advocates and health educators for patients, families, and communities. When providing direct patient care, they observe, assess, and record symptoms, reactions, and progress; assist physicians during treatments and examinations; administer medications; and assist in convalescence and rehabilitation. R.N.s also develop and manage nursing care plans; instruct patients and their families in proper care; and help individuals and groups take steps to improve or maintain their health. While State laws govern the tasks R.N.s may perform, it is usually the work setting, which determines their day-to-day job duties.

Hospital nurses form the largest group of nurses. Most are staff nurses, who provide bedside nursing care and carry out medical regimens. They may also supervise licensed practical nurses and aides. Hospital nurses usually are assigned to one area such as surgery, maternity, pediatrics, emergency room, intensive care, or treatment of cancer patients. Some may rotate among departments.

Office nurses care for outpatients in physicians' offices, clinics, surgicenters, and emergency medical centers. They prepare patients for and assist with examinations, administer injections and medications, dress wounds and incisions, assist with minor surgery, and maintain records. Some also perform routine laboratory and office work.

Nursing home nurses manage nursing care for residents with conditions ranging from a fracture to Alzheimer's disease. Although they usually spend most of their time on administrative and supervisory tasks, R.N.s also assess residents' medical condition, develop treatment plans, supervise licensed practical nurses and nursing aides, and perform difficult procedures such as starting intravenous fluids. They also work in specialty-care departments, such as long-term rehabilitation units for strokes and head-injuries.

Home health nurses provide periodic services, prescribed by a physician, to patients at home. After assessing patients' home environments, they care for and instruct patients and their families. Home health nurses care for a broad range of patients, such as those recovering from illnesses and accidents, cancer, and child birth. They must be able to work independently and may supervise home health aides.

Public health nurses work in government and private agencies and clinics, schools, retirement communities and other community settings. They focus on populations, working with individuals, groups, and families to improve the overall health of communities. They also work as partners with communities to plan and implement programs. Public health nurses instruct individuals, families, and other groups in health education, disease prevention, nutrition, and child care. They arrange for immunizations, blood pressure testing, and other health screening. These nurses also work with community leaders, teachers, parents, and physicians in community health education.

Occupational health or industrial nurses provide nursing care at worksites to employees, customers, and others with minor injuries and illnesses. They provide emergency care, prepare accident reports, and arrange for further care if necessary. They also offer health counseling, assist with health examinations and inoculations, and assess work environments to identify potential health or safety problems.

Head nurses or nurse supervisors direct nursing activities. They plan work schedules and assign duties to nurses and aides, provide

or arrange for training, and visit patients to observe nurses and to insure that care is proper. They may also insure records are maintained and equipment and supplies are ordered.

At the advanced level, *nurse practitioners* provide basic primary health care. They diagnose and treat common acute illnesses and injuries. Nurse practitioners can prescribe medications in all States and the District of Columbia. Other advanced practice nurses include *clinical nurse specialists*, *certified registered nurse anesthetists*, and *certified nurse-midwives*. Advanced practice nurses have met higher educational and clinical practice requirements beyond the basic nursing education and licensing required of all R.N.s.

Working Conditions

Most nurses work in well-lighted, comfortable health care facilities. Home health and public health nurses travel to patients' homes and to schools, community centers, and other sites. Nurses may spend considerable time walking and standing. They need emotional stability to cope with human suffering, emergencies, and other stresses. Because patients in hospitals and nursing homes require 24-hour care, nurses in these institutions may work nights, weekends, and holidays. They may also be on-call; available to work on short notice. Office, occupational health, and public health nurses are more likely to work regular business hours. Almost 1 in 10 R.N.s held more than one job in 1998.

Nursing has its hazards, especially in hospitals, nursing homes, and clinics where nurses may care for individuals with infectious diseases such as hepatitis. Nurses must observe rigid guidelines to guard against these and other dangers such as radiation, chemicals used for sterilization of instruments, and anesthetics. In addition, they are vulnerable to back injury when moving patients, shocks from electrical equipment, and hazards posed by compressed gases.

Employment

As the largest health care occupation, registered nurses held about 2.1 million jobs in 1998. About 3 out of 5 jobs were in hospitals, in inpatient and outpatient departments. Others were mostly in offices and clinics of physicians and other health practitioners, home health care agencies, nursing homes, temporary help agencies, schools, and government agencies. The remainder worked in residential care facilities, social service agencies, religious organizations, research facilities, management and public relations firms, insurance agencies, and private households. About 1 out of 4 R.N.s worked part time.

Training, Other Qualifications, and Advancement

In all States, students must graduate from a nursing program and pass a national licensing examination to obtain a nursing license. Nurses may be licensed in more than one State, either by examination or endorsement of a license issued by another State. Licenses must be periodically renewed. Some States require continuing education for licensure renewal.

In 1998, there were over 2,200 entry level R.N. programs. There are three major educational paths to nursing: Associate degree in nursing (A.D.N.), bachelor of science degree in nursing (B.S.N.), and diploma. A.D.N. programs, offered by community and junior colleges, take about 2 years. About half of all R.N. programs in 1998 were at the A.D.N. level. B.S.N. programs, offered by colleges and universities, take 4 or 5 years. About one-fourth of all programs in 1998 offered degrees at the bachelor's level. Diploma programs, given in hospitals, last 2 to 3 years. Only a small number of programs, about 4 percent, offer diploma level degrees. Generally, licensed graduates of any of the three program types qualify for entry level positions as staff nurses.



The majority of nurses provide patient care in hospitals.

There have been attempts to raise the educational requirements for an R.N. license to a bachelor's degree and, possibly, create new job titles. These changes, should they occur, will probably be made State by State, through legislation or regulation. Changes in licensure requirements would not affect currently licensed R.N.s, who would be "grandfathered" in, no matter what their educational preparation. However, individuals considering nursing should carefully weigh the pros and cons of enrolling in a B.S.N. program, since their advancement opportunities are broader. In fact, many career paths are open only to nurses with bachelor's or advanced degrees. A bachelor's degree is usually necessary for administrative positions and is a prerequisite for admission to graduate nursing programs in research, consulting, teaching, or a clinical specialization.

Many A.D.N. and diploma-trained nurses enter bachelor's programs to prepare for a broader scope of nursing practice. They can often find a hospital position and then take advantage of tuition reimbursement programs to work toward a B.S.N.

Nursing education includes classroom instruction and supervised clinical experience in hospitals and other health facilities. Students take courses in anatomy, physiology, microbiology, chemistry, nutrition, psychology and other behavioral sciences, and nursing. Coursework also includes liberal arts classes.

Supervised clinical experience is provided in hospital departments such as pediatrics, psychiatry, maternity, and surgery. A growing number of programs include clinical experience in nursing homes, public health departments, home health agencies, and ambulatory clinics.

Nurses should be caring and sympathetic. They must be able to accept responsibility, direct or supervise others, follow orders precisely, and determine when consultation is required.

Experience and good performance can lead to promotion to more responsible positions. Nurses can advance, in management, to assistant head nurse or head nurse. From there, they can advance to assistant director, director, and vice president. Increasingly, management level nursing positions require a graduate degree in nursing or health services administration. They also require leadership, negotiation skills, and good judgment. Graduate programs preparing executive level nurses usually last 1 to 2 years.

Within patient care, nurses can advance to clinical nurse specialist, nurse practitioner, certified nurse-midwife, or certified registered nurse anesthetist. These positions require 1 or 2 years of graduate education, leading in most instances to a master's degree, or to a certificate.

Some nurses move into the business side of health care. Their nursing expertise and experience on a health care team equip them to manage ambulatory, acute, home health, and chronic care services. Some are employed by health care corporations in health planning and development, marketing, and quality assurance. Other nurses work as college and university faculty or do research.

Job Outlook

Employment of registered nurses is expected to grow faster than the average for all occupations through 2008 and because the occupation is large, many new jobs will result. There will always be a need for traditional hospital nurses, but a large number of new nurses will be employed in home health, long-term, and ambulatory care.

Faster than average growth will be driven by technological advances in patient care, which permit a greater number of medical problems to be treated, and an increasing emphasis on primary care. In addition, the number of older people, who are much more likely than younger people to need medical care, is projected to grow very rapidly. Many job openings also will result from the need to replace experienced nurses who leave the occupation, especially as the median age of the registered nurse population continues to rise.

Employment in hospitals, the largest sector, is expected to grow more slowly than in other health-care sectors. While the intensity of nursing care is likely to increase, requiring more nurses per patient, the number of inpatients (those who remain overnight) is not likely to increase much. Patients are being released earlier and more procedures are being done on an outpatient basis, both in and outside hospitals. Most rapid growth is expected in hospitals' outpatient facilities, such as same-day surgery, rehabilitation, and chemotherapy.

Employment in home health care is expected to grow rapidly. This is in response to a growing number of older persons with functional disabilities, consumer preference for care in the home, and technological advances which make it possible to bring increasingly complex treatments into the home. The type of care demanded will require nurses who are able to perform complex procedures.

Employment in nursing homes is expected to grow much faster than average due to increases in the number of people in their eighties and nineties, many of whom will require long-term care. In addition, the financial pressure on hospitals to release patients as soon as possible should produce more nursing home admissions. Growth in units to provide specialized long-term rehabilitation for stroke and head injury patients or to treat Alzheimer's victims will also increase employment.

An increasing proportion of sophisticated procedures, which once were performed only in hospitals, are being performed in physicians' offices and clinics, including ambulatory surgicenters and emergency medical centers. Accordingly, employment is expected to grow faster than average in these places as health care in general expands.

In evolving integrated health care networks, nurses may rotate among employment settings. Since jobs in traditional hospital nursing positions are no longer the only option, R.N.s will need to be flexible. Opportunities will be good for nurses with advanced education and training, such as nurse practitioners.

Earnings

Median annual earnings of registered nurses were \$40,690 in 1998. The middle 50 percent earned between \$34,430 and \$49,070 a year. The lowest 10 percent earned less than \$29,480 and the highest 10 percent earned more than \$69,300 a year. Median annual earnings in the industries employing the largest numbers of registered nurses in 1997 were as follows:

Personnel supply services	\$43,000
Hospitals	39,900
Home health care services	39,200
Offices and clinics of medical doctors	36,500
Nursing and personal care facilities	36,300

Many employers offer flexible work schedules, child care, educational benefits, and bonuses.

Related Occupations

Workers in other health care occupations with responsibilities and duties related to those of registered nurses are occupational therapists, emergency medical technicians, physical therapists, physician assistants, and respiratory therapists.

Sources of Additional Information

For information on a career as a registered nurse and nursing education, contact:

☛ National League for Nursing, 61 Broadway, New York, NY 10006. Internet: <http://www.nln.org>

For a list of B.S.N. and graduate programs, write to:
☛ American Association of Colleges of Nursing, 1 Dupont Circle NW., Suite 530, Washington, DC 20036. Internet: <http://www.aacn.nche.edu>

Information on registered nurses is also available from:
 American Nurses Association, 600 Maryland Ave. SW., Washington,
 DC 20024-2571. Internet: <http://www.nursingworld.org>

Respiratory Therapists

(O*NET 32302)

Significant Points

- Hospitals will continue to employ more than 9 out of 10 respiratory therapists, but a growing number will work in home health agencies, respiratory therapy clinics, and nursing homes.
- Job opportunities will be best for therapists who work with newborns and infants.

Nature of the Work

Respiratory therapists evaluate, treat, and care for patients with breathing disorders. To evaluate patients, therapists test the capacity of the lungs and analyze oxygen and carbon dioxide concentration. They also measure the patient's potential of hydrogen (pH), which indicates the acidity or alkalinity level of the blood. To measure lung capacity, therapists have patients breathe into an



A respiratory therapist measures the oxygen in a patient's bloodstream.

instrument that measures the volume and flow of oxygen during inhalation and exhalation. By comparing the reading with the norm for the patient's age, height, weight, and sex, respiratory therapists can determine whether lung deficiencies exist. To analyze oxygen, carbon dioxide, and pH levels, therapists draw an arterial blood sample, place it in a blood gas analyzer, and relay the results to a physician.

Respiratory therapists treat all types of patients, ranging from premature infants whose lungs are not fully developed, to elderly people whose lungs are diseased. These workers provide temporary relief to patients with chronic asthma or emphysema and emergency care for patients who suffered heart failure or a stroke or are victims of drowning or shock. Respiratory therapists most commonly use oxygen or oxygen mixtures, chest physiotherapy, and aerosol medications. To increase a patient's concentration of oxygen, therapists place an oxygen mask or nasal cannula on a patient and set the oxygen flow at the level prescribed by a physician. Therapists also connect patients who cannot breathe on their own to ventilators that deliver pressurized oxygen into the lungs. They insert a tube into a patient's trachea, or windpipe; connect the tube to the ventilator; and set the rate, volume, and oxygen concentration of the oxygen mixture entering the patient's lungs.

Therapists regularly check on patients and equipment. If the patient appears to be having difficulty, or if the oxygen, carbon dioxide, or pH level of the blood is abnormal, they change the ventilator setting, according to the doctor's order or check equipment for mechanical problems. In home care, therapists teach patients and their families to use ventilators and other life support systems. Additionally, they visit several times a month to inspect and clean equipment and ensure its proper use and make emergency visits, if equipment problems arise.

Respiratory therapists perform chest physiotherapy on patients to remove mucus from their lungs and make it easier for them to breathe. For example, during surgery, anesthesia depresses respiration, so this treatment may be prescribed to help get the patient's lungs back to normal and to prevent congestion. Chest physiotherapy also helps patients suffering from lung diseases, such as cystic fibrosis, that cause mucus to collect in the lungs. In this procedure, therapists place patients in positions to help drain mucus, thump and vibrate patients' rib cages, and instruct them to cough.

Respiratory therapists also administer aerosols—generally liquid medications suspended in a gas that forms a mist which is inhaled—and teach patients how to inhale the aerosol properly to assure its effectiveness.

Therapists are increasingly asked to perform tasks that fall outside their traditional role. Tasks are expanding into cardiopulmonary procedures like electrocardiograms and stress testing, as well as other tasks like drawing blood samples from patients. Therapists also keep records of materials used and charges to patients. Additionally, some teach or supervise other respiratory therapy personnel.

Working Conditions

Respiratory therapists generally work between 35 and 40 hours a week. Because hospitals operate around the clock, therapists may work evenings, nights, or weekends. They spend long periods standing and walking between patients' rooms. In an emergency, therapists work under a great deal of stress.

Because gases used by respiratory therapists are stored under pressure, they are potentially hazardous. However, adherence to safety precautions and regular maintenance and testing of equipment minimize the risk of injury. As with many health occupations, respiratory therapists run a risk of catching infectious diseases, but carefully following proper procedures minimizes this risk, as well.